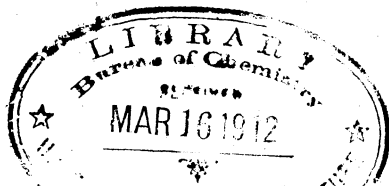


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Issued March 13, 1912.

U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY.—CIRCULAR 196.

A. D. MELVIN, CHIEF OF BUREAU.

SOME RESULTS OF CATTLE-TICK ERADICATION.

An effort has been made to secure direct evidence from cattlemen and farmers regarding the benefits of the cattle industry of the South which are being derived from the tick-eradication work carried on in cooperation between the Bureau of Animal Industry of the United States Department of Agriculture and the various States within the quarantined area. Accordingly a circular was sent out from the local headquarters of the Bureau of Animal Industry, at Nashville, Tenn., to a large number of representative stockmen and farmers in that section asking for replies to eight specific questions concerning the results of the work up to date. The questions asked were as follows:

1. What were the approximate annual losses of cattle from tick fever in your county from 1900 to 1909, inclusive?
2. What was the approximate value of all the cattle that died?
3. What has been the annual loss of cattle from tick fever since tick eradication started?
4. What was the average value of 3-year-old steers in your county from 1900 to 1909, inclusive?
5. What is the average value of 3-year-old steers now?
6. Is there any difference in the average weight of cattle now and before tick eradication was started? How much?
7. Is there any improvement in the grades of cattle in your county since the work of tick eradication started?
8. Do you use cow manure as a fertilizer? If so, state the relative productiveness of land with similar land on which it is not used.

One hundred replies have been received, and the information contained therein has been condensed and averaged as below. Of these replies 13 came from Alabama, 45 from Mississippi, 24 from Tennessee, and 18 were not located.

It is hoped that the striking results indicated by these reports will act as an incentive to all concerned to push the work of eradication more vigorously than ever.

A summary of the replies to each of the questions now follows, in the order above named:

1. ANNUAL LOSSES FROM TICK FEVER FOR THE 10-YEAR PERIOD FROM 1900 TO 1909.

The majority of the estimates of losses of cattle before the work of tick eradication started were given in percentages, the figures running from 2 to 65 per cent. With a few exceptions the remainder gave the answer in number of head annually lost in each county, the latter ranging from 75 to 5,000. The simple averages¹ in each of these cases are:

Percentage of annual losses in each county.....	15.3 per cent.
Number of animals annually lost in each county.....	895 head.

2. ANNUAL VALUE OF LOSSES, 1900 TO 1909.

The value of the annual losses in each county during the period before tick eradication is estimated all the way from \$150 to \$50,000, with an average of \$5,880 per annum per county.

3. ANNUAL LOSS SINCE INAUGURATION OF TICK WORK.

About one-half of the reports stated that the losses since tick eradication was started were either none at all, or "practically none," or "very small." Others gave the losses as "much less," "50 per cent less," etc. A number gave the answer in percentages, only one of which was higher than 5 per cent. Still others placed the losses in number of cattle, and these ranged from 15 to 500 per county.

Upon averaging the answers which gave definite figures, we get the following results.

Percentage losses.....	1.3 per cent.
Cattle annually lost per county.....	20.3 head.

When these averages are compared with those of Question 1, it will be seen that the losses have been reduced almost to the vanishing point since tick eradication has been in progress.

4. VALUE OF 3-YEAR-OLD STEERS, 1900 TO 1909.

Rather more than half the answers to this question stated the price per steer, the remainder naming the price per pound. The price per animal ranged from \$7 to \$30, the price per pound from 1½ to 3 cents. The averages are:

Price per steer.....	\$16.15
Price per pound.....	.02½

¹ Owing to the absence of information as to the total number of cattle in each county it is not possible to compute any more accurate averages than the simple average of the various percentages and numbers given in the reports. These and succeeding average have therefore been computed in this way.

5. PRESENT (1911) VALUE OF 3-YEAR-OLD STEERS.

The answers to this question were similar in form to those for Question 4. In this case the range of price per animal was from \$15 to \$45, and the price per pound varied from $2\frac{1}{2}$ to $4\frac{1}{2}$ cents. The averages are:

Price per steer.....	\$25.28
Price per pound.....	.08 $\frac{1}{2}$

On comparing these values with the results of Question 4, it will be seen there is an advance of \$9.13, or 57 per cent, in the price per steer, and of $1\frac{1}{2}$ cents, or 56 per cent, in the price per pound. The two methods of estimating therefore yield a practically similar result.

It must be admitted, however, that all of this increase can not be attributed to the tick-eradication work, because of the general advance in the price of cattle which has taken place in recent years. The proportion which should be credited to this general advance may be closely approximated by means of the estimates of the Bureau of Statistics, Department of Agriculture, which give the average farm value of all cattle (except dairy cows) in the United States for the 10-year period from 1900 to 1909 as \$18.09, while the average value of such cattle in 1911 was \$20.85, an advance of \$2.76 per head. If we deduct this amount from the above mentioned total advance of \$9.13, there remains \$6.37 per head, or 40 per cent, which can properly be credited to the absence of the tick.

6. INCREASED WEIGHT OF CATTLE DUE TO TICK ERADICATION.

Naturally the answers to this question are practically unanimous in the affirmative; a very few, however—4 per cent to be exact—stated there was no increase in the weight of cattle since tick eradication was started. The great majority of the answers were expressed in percentages, the lowest of these being 5 per cent and the highest 75 per cent. Others estimated the increase in pounds, the lowest of which was 50 and the highest 200. The average in each case is:

Average per cent increase.....	22 per cent.
Average weight increase.....	116 pounds.

7. IMPROVEMENT IN GRADE OF CATTLE RESULTING FROM TICK ERADICATION.

There is practical unanimity in admitting an improvement in the quality of the cattle resulting from the work of clearing the ticks. Over 90 per cent of the replies are in this strain, and a large number say the improvement is very marked and that it is increasing. A few

reports from territory recently cleared state there has hardly been time for the conditions to change. Four of the replies deny that any improvement has taken place.

8. BENEFITS FROM USE OF COW MANURE.

Nearly all the reports were enthusiastic about the value of cow manure as a fertilizer. One said it increased the crop from 1 to 5 times, depending upon the amount used; another went still further, saying the crop was increased from 2 to 6 times. Six only of the 100 correspondents reported that they did not use it on their land. Upward of 50 per cent of the writers stated that the productiveness of the land was increased 100 per cent or more. The remainder claimed benefits to a lesser degree.

A MISSISSIPPI FARMER'S VIEWS.

A number of the reports contained very full answers to the questions, many of the writers adding pertinent and intelligent comments on the situation in their respective localities. The following is a copy of the remarks appended to a report received from Hinds County, Miss.:

With the prospect of tick eradication the raising of cattle is springing into life. In years gone, with the tick depopulating bunches of cattle, there was no money to be made in raising cattle. With the present outlook men are fencing their lands and there is sharp competition for every heifer or cow that can be bought. Improved breeds are being sought and registered bulls brought in. If our authorities will pass a tick law and see that it is rigidly enforced, we can clean out the ticks in 12 months. In 5 years from now our pastures will be full of high-grade feeders, and the sale of carloads of such animals will be an ordinary occurrence. Even now I hear farmers talking of raising corn by the 1,000 bushels and having cattle of such breeds that it will pay to feed the corn to them. All this is mute testimony to the great good that is resulting to our people, springing mainly from the efforts of the National Government.

Approved.

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., *February 8, 1912.*

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